

# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

## PCT

**WRITTEN OPINION**  
(PCT Rule 66)

To:

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05 JUL 2004

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Date of mailing  
(day/month/year)

05.07.2004

Applicant's or agent's file reference  
P82953PC00/JRH

**REPLY DUE**

**within 3 month(s)**  
from the above date of mailing

International application No.  
PCT/GB 03/04298

International filing date (day/month/year)  
06.10.2003

Priority date (day/month/year)  
04.10.2002

International Patent Classification (IPC) or both national classification and IPC  
H01F1/00

Applicant  
NANOMAGNETICS LIMITED et al.

COMPUTER

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.
 

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 04.02.2005

Name and mailing address of the international preliminary examining authority:



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**I. Basis of the opinion**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

1-131 as originally filed

**Drawings, Sheets**

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	52- 53,55- 56,61,69-77,81-85,89,92,98-101,103-104,109,117-122,126
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Inventive step (IS)	Claims
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Industrial applicability (IA)	Claims
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**2. Citations and explanations****see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:  
D1: US-A-5 427 767 (LAWACZECK RUDIGER ET AL) 27 June 1995 (1995-06-27)  
D2: WO 95/05669 A (ADVANCED MAGNETICS INC) 23 February 1995 (1995-02-23)  
D3: US-A-5 670 078 (ZIOLO RONALD F) 23 September 1997 (1997-09-23)  
D4: WOODING A ET AL: "PROTEINS AND CARBOHYDRATES AS ALTERNATIVE SURFACTANTS FOR THE PREPARATION OF STABLE MAGNETIC FLUIDS" IEEE TRANSACTIONS ON MAGNETICS, IEEE INC. NEW YORK, US, vol. 24, no. 2, 1 March 1988 (1988-03-01), pages 1650-1652, XP000174168 ISSN: 0018-9464
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 52-53, 55-56, 61, 69-77, 81-85, 89, 92, 98-101, 103-104, 109, 117-122 and 126 is not new in the sense of Article 33(2) PCT.
  - 2.1. Documents **D1** (claim 1; column 7, lines 12-51; Example 9), **D2** (claims 2, 5-6 and 19; page 20, lines 1-15) and **D3** (claim 1; column 7, lines 18-21; column 9, line 24 - column 10, line 46; example 13) each describe a method of making a composition of magnetic nanoparticles according to the subject-matter of independent claim 52.

Hence, independent claim 52 lacks novelty as required by Art.33(2) PCT.
  - 2.2. Documents D1 (section 2.1. of present communication; column 15, lines 35-40) and D4 (the whole document) each describe a stable composition of magnetic nanoparticles according to the subject-matter of independent claim 98.

Hence, independent claim 98 lacks novelty as required by Art.33(2) PCT.
  - 2.3. The subject-matter of dependent claims 53, 55-56, 61, 69-77, 81-85, 89, 92, 99-101, 103-104, 109, 117-122 and 126 is known from prior art (see D1-D3 each for claims 53, 55-56, 61, 69-72, 75, 82-84 and 92; see D3 for claims 62, 73-74 and 76-77; see D1 and D2 each for claim 81; see D2 and D3 each for claim 85; see D2 for claim 89; see D1 and D4 each for claims 99-101, 103-104, 109 and 117-121; see D4 for claim

122; see D1 for claim 126).

Hence, dependent claims 53, 55-56, 61, 69-77, 81-85, 89, 92, 99-101, 103-104, 109, 117-122 and 126 lack novelty as required by Art.33(2) PCT.